BULLETIN OF THE ATOMIC SCIENTISTS
INDEX TO VOLUME XX, 1964

Albrecht, Herbert, letter to the editor, Oct., 38.

Alexander, Archibald, "The Problem and the Opportunity." April, 8–10.

Aptheker, Herbert, letter to the editor, Mar., 25.

Aron, Raymond, "Rationality of Modern Society," Jan., 23–24.

Barden, John, "Barden Yields to No Mann," Oct., 30–31.

Barnes, Wyatt, letter to the editor, Feb., 25–26.

Bartlett, Senator E. L., "Opening the Door," April, 27.

Beadle, George W., "The New Biology and the Nature of Man," Mar., 13–17.

Bechhoefer, Bernhard G., "The Test-Ban Treaty: Some Further Considerations," May, 25–27.

Berreman, Gerald D., "Fear Itself: An Anthropologist's View," Nov., 8–11.

Born, Max, "What is Left to Hope For?" April, 2–5.

Broda, Engelbert, "When Exchange Is Not Really Exchange," Nov., 23–25.

Calder, Nigel, "Technology and the Investor," April, 47–48.

Chamberlain, Mary-Stuart, letter to the editor, Jan., 26.

Condon, Edward U., "Education for World Understanding," March, 18–19.

Crary, A. P. "Antarctica: The International Laboratory," Jan., 27–30.

Crosby, H. Ashton, "Nonnuclear Defense of Europe," April, 30–31.

Daly, Richard and Lindsay Mattison, "Nevada Fallout—Past and Present Hazards," April, 41–45.

de Jouvenel, Bertrand, "The Technocratic Age," Oct., 27–29.

de Toledano, Ralph, *The Greatest Plot in History*, reviewed by Harold P. Green, Feb., 29–30.

Daffler, James R., letter to the editor, Dec., 22.

Dobzhansky, Theodosius, "Evolution —Organic and Superorganic," May, 4–8.

Donnay, J. D. H., letter to the editor, Mar., 25.

Doob, Joseph L., letter to the editor, April, 33.

Dunning, Gordon M., letter to the editor, June, 29–30.

Dyson, Freeman J., "Defense Against Ballistic Missiles," June, 12–18.

Elwyn, David H., letter to the editor, Oct., 36–37.

Etzioni, Amitai, "When Scientists Testify," Oct., 23–26.

Federation of American Scientists, "Statement on Biological and Chemical Warfare," Oct., 46–47.

Feld, Bernard T., "The Nonproliferation of Nuclear Weapons," Dec., 2–6.

Forbes, Allan, letter to the editor, June, 36–37.

Forscher, Frederick, letter to the editor, April, 32; letter to the editor, Dec., 23.

Friedmann, John, review of Wingo, *Cities and Space: The Future Use of Urban Space*, May, 30–32.

Gerber, Alex, letter to the editor, April, 32.

Gilpin, Robert and C. Wright, *Scientists and National Policy-Making*, reviewed by Emmanuel G. Mesthene, Nov., 25–27.

Gottlieb, Sanford, review of Kofmehl, *Professional Staffs of Congress*, April, 36–37.

Green, Harold P., review of de Toledano, *The Greatest Plot in History*, Feb., 29–30; "Q-Clearance: The Development of a Personnel Security Program," May, 9–15, see errata, June, 38.

Harris, Seymour E., "Economics of Politics," Jan., 32–34.

Hartshorne, Charles, letter to the editor, Oct., 38.

Hauser, Philip M., "Man and More Men: The Population Prospects," June, 4–8

Haybittle, John, "Ethics for the Scientist," May, 23–24.

Heitler, W., Ethics of the Scientific Age," Oct., 21–23.

Hoagland, Hudson, "Cybernetics of Population Control," Feb., 2–6.

Holman, Mary A., "Patents for R and D," Oct., 32–34.

Huxley, Aldous, *Literature and Science*, reviewed by Hans Zeisel, Jan., 34–35.

Ichheiser, Gustav, letter to the editor, June, 35.

Ivy, A. C., letter to the editor, Sept., 28.

Jack, Homer A., "Disarmament at the U.N.," Feb., 33–36; "From Cairo: The Nonaligned Confer," Dec., 34–35; "Seventeen Continue," June, 43–44.

Janowitz, Morris, "The Military in the Political Development of New Nations," Oct., 6–10.

Pope John XXIII, "Pacem in Terris," (excerpts), Jan., 2.

Johnson, D. Gale, letter to the editor, June, 35–36; "Soviet Agriculture," Jan., 8–12.

Jordan, Nehemiah, letter to the editor, Mar., 24–25.

Kalkstein, Marvin, "Preventing the Spread of Nuclear Weapons," Dec., 18–20.

BULLETIN OF THE ATOMIC SCIENTISTS
INDEX TO VOLUME XX, 1964

Albrecht, Herbert, letter to the editor, Oct., 38.

Alexander, Archibald, "The Problem and the Opportunity." April, 8–10.

Aptheker, Herbert, letter to the editor, Mar., 25.

Aron, Raymond, "Rationality of Modern Society," Jan., 23–24.

Barden, John, "Barden Yields to No Mann," Oct., 30–31.

Barnes, Wyatt, letter to the editor, Feb., 25–26.

Bartlett, Senator E. L., "Opening the Door," April, 27.

Beadle, George W., "The New Biology and the Nature of Man," Mar., 13–17.

Bechhoefer, Bernhard G., "The Test-Ban Treaty: Some Further Considerations," May, 25–27.

Berreman, Gerald D., "Fear Itself: An Anthropologist's View," Nov., 8–11.

Born, Max, "What is Left to Hope For?" April, 2–5.

Broda, Engelbert, "When Exchange Is Not Really Exchange," Nov., 23–25.

Calder, Nigel, "Technology and the Investor," April, 47–48.

Chamberlain, Mary-Stuart, letter to the editor, Jan., 26.

Condon, Edward U., "Education for World Understanding," March, 18–19.

Crary, A. P. "Antarctica: The International Laboratory," Jan., 27–30.

Crosby, H. Ashton, "Nonnuclear Defense of Europe," April, 30–31.

Daly, Richard and Lindsay Mattison, "Nevada Fallout—Past and Present Hazards," April, 41–45.

de Jouvenel, Bertrand, "The Technocratic Age," Oct., 27–29.

de Toledano, Ralph, *The Greatest Plot in History*, reviewed by Harold P. Green, Feb., 29–30.

Daffler, James R., letter to the editor, Dec., 22.

Dobzhansky, Theodosius, "Evolution —Organic and Superorganic," May, 4–8.

Donnay, J. D. H., letter to the editor, Mar., 25.

Doob, Joseph L., letter to the editor, April, 33.

Dunning, Gordon M., letter to the editor, June, 29–30.

Dyson, Freeman J., "Defense Against Ballistic Missiles," June, 12–18.

Elwyn, David H., letter to the editor, Oct., 36–37.

Etzioni, Amitai, "When Scientists Testify," Oct., 23–26.

Federation of American Scientists, "Statement on Biological and Chemical Warfare," Oct., 46–47.

Feld, Bernard T., "The Nonproliferation of Nuclear Weapons," Dec., 2–6.

Forbes, Allan, letter to the editor, June, 36–37.

Forscher, Frederick, letter to the editor, April, 32; letter to the editor, Dec., 23.

Friedmann, John, review of Wingo, *Cities and Space: The Future Use of Urban Space*, May, 30–32.

Gerber, Alex, letter to the editor, April, 32.

Gilpin, Robert and C. Wright, *Scientists and National Policy-Making*, reviewed by Emmanuel G. Mesthene, Nov., 25–27.

Gottlieb, Sanford, review of Kofmehl, *Professional Staffs of Congress*, April, 36–37.

Green, Harold P., review of de Toledano, *The Greatest Plot in History*, Feb., 29–30; "Q-Clearance: The Development of a Personnel Security Program," May, 9–15, see errata, June, 38.

Harris, Seymour E., "Economics of Politics," Jan., 32–34.

Hartshorne, Charles, letter to the editor, Oct., 38.

Hauser, Philip M., "Man and More Men: The Population Prospects," June, 4–8

Haybittle, John, "Ethics for the Scientist," May, 23–24.

Heitler, W., Ethics of the Scientific Age," Oct., 21–23.

Hoagland, Hudson, "Cybernetics of Population Control," Feb., 2–6.

Holman, Mary A., "Patents for R and D," Oct., 32–34.

Huxley, Aldous, *Literature and Science*, reviewed by Hans Zeisel, Jan., 34–35.

Ichheiser, Gustav, letter to the editor, June, 35.

Ivy, A. C., letter to the editor, Sept., 28.

Jack, Homer A., "Disarmament at the U.N.," Feb., 33–36; "From Cairo: The Nonaligned Confer," Dec., 34–35; "Seventeen Continue," June, 43–44.

Janowitz, Morris, "The Military in the Political Development of New Nations," Oct., 6–10.

Pope John XXIII, "Pacem in Terris," (excerpts), Jan., 2.

Johnson, D. Gale, letter to the editor, June, 35–36; "Soviet Agriculture," Jan., 8–12.

Jordan, Nehemiah, letter to the editor, Mar., 24–25.

Kalkstein, Marvin, "Preventing the Spread of Nuclear Weapons," Dec., 18–20.

Kasdan, Alan Richard, "Toward a New Order in International Trade," Dec., 40–43.

Kellogg, Charles E., "Soil-Use Planning for Individual and Public Goals," Nov., 15–18.

Khrushchev, Nikita S., "Khrushchev in Astrakhan" (excerpts), Jan., 12–14.

Kofmehl, Kenneth, *Professional Staffs of Congress*, reviewed by Sanford Gottlieb, April, 36–37.

Kolodziej, Edward A., "What Does the Test Ban Mean," March, 22–23.

Korf, Stanley R., letter to the editor, Sept., 30.

Lakoff, Sanford A., "The Nth Culture Problem," May, 21–23.

Lall, Arthur S., "The Nonaligned in Disarmament Negotiations," May, 17–21.

Lall, Betty Goetz, "Congress Considers Impact of Defense Reductions," Feb., 31–32; "Diminishing the Danger of Surprise Attack in Europe," March, 31–34; "Disarmament Policy and the Pentagon," Sept., 37–40; "Information in Arms Control Verification," Oct., 43–45; "Mainland China and U.S. Security," April, 24–27 "A Nato–Warsaw Detente," Nov., 37–39; "Peacekeeping Since 1946," May, 37–40; "The Polish Plan," June, 41–43; "Questions and Answers on the U.S. Production Freeze Proposal," Dec., 30–34.

Lauter, Paul, letter to the editor, May, 28.

Leontief, Wassily, "Alternatives to Armament Expenditures," June, 19–21.

Levine, Robert A., "Open Letter from a Military Intellectual to a Sophisticated Liberal Leader," Sept., 24–27.

Lewis, John P., *Quiet Crisis in India*, reviewed by Norman D. Palmer, Dec., 24.

Lewis, Richard S., "The Arizona Compromise," April, 45–47; "And Quiet Shines the Sun," Jan., 30–32; "At Sea on the Moon," Nov., 35–37.

Long, Franklin A., "The Immediate Steps Toward Disarmament," Feb., 7–10.

McNamara, Robert S., "National Security and Nuclear Strategy," March, 35–39.

Mann, Georg, "Why Not Settle for One Good Culture," Oct., 30–31.

Marcuse, Herbert, "World Without a Logos," Jan., 25.

Margolis, Howard, "The Bomb in China," Dec., 36–40; "The Curious Case of Krebiozen," March, 29–31; "Notes on the Democratic Convention," Oct., 3942; "Notes on the MLF," Nov., 28–30; "Notes on the Republican Convention," Sept., 31–34; "The Politics of Fluoridation," June, 38–41; "R and D on Capitol Hill," May, 33–37; "Velikovsky Rides Again," April, 38–40.

Marmor, Judd, "War, Violence, and Human Nature," March, 19–22.

Martin, Thomas L., and Donald C. Latham, *Strategy for Survival*, reviewed by George S. Stanford, April, 35–36.

Mattison, Lindsay and Richard Daly, "Nevada Fallout: Past and Present Hazards," April, 41–45; letter to the editor, Sept., 30.

Mead, Margaret, *Continuities in Cultural Evolution*, reviewed by John R. Platt, Dec., 25–26.

Meitner, Lise, "Looking Back," Nov., 2–7.

Mendlovitz, Saul H., "Teaching War Prevention," Feb., 19–22.

Meselson, Matthew, review of Rothschild, *Tomorrow's Weapons, Chemical and Biological*, Oct., 35–36.

Mesthene, Emmanuel G., review of Gilpin and Wright, *Scientists and National Policy-Making*, Nov., 25–27.

Michaelis, Michael, "A Strategy for Innovation," April, 19–23; see errata, June, 38.

Mottet, Arthur L., Jr., letter to the editor, April, 34.

Muller, H. J., "Perspectives for the Life Sciences," Jan., 3–7; letter to the editor, Oct., 37.

Muller, Steven, "A Reawakening on the Rhine," Sept. 2–6.

Nelson, Richard R., "Adjusting R and D," April, 15–19.

Newhouse, John, "The Multilateral Force: An Appraisal," Sept., 13–18.

Nieburg, H. L., "Atoms for Peace: Hope Deferred," Jan., 35–40.

North, Robert C., "The Race Between Destruction and Adaptability," Mar., 26–28.

Palmedo, Philip F., "The Debate on the *Force de Frappe* Takes Shape," June, 29–30.

Palmer, Norman D., review of Lewis, *Quiet Crisis in India*, review of Weiner, *The Politics of Scarcity*, Dec., 24.

Pell, Senator Claiborne, "Pell's Proposals on Germany," Feb., 9.

Pistolese, Francesco, letter to the editor, May, 29.

Pittman, Steuart L., "Civil Defense in a Balanced National Security," June, 24–26.

Platt, John R., "Research and Development for Social Problems," June, 27–29; review of Mead, *Continuities in Cultural Evolution*, Dec., 25–26.

Pugwash–COSWA, "Statement of the Twelfth Pugwash Conference on Science and World Affairs," June, 45–48; "Statement of the Thirteenth Pugwash Conference on Science and World Affairs," Dec., 43–45; "Pugwash on Scientific Cooperation," Sept., 41–46.

Rabinowitch, Alexander, review of Schapiro, *The USSR and the Future*, Feb., 30.

Rabinowitch, Eugene, "Gresham's Law in Soviet-American Exchange," June, 2–3; "James Franck, 1882–1964 and Leo Szilard, 1898–1964," Oct., 16–20; "Morton Grodzins, 1917–1964," May, 15–16; "New Year's Thoughts 1964," Jan., 2 and 18; "Stop the World," Oct., 2–5.

Rabinowitch, Victor, "Unesco Science and Technology," Nov., 31–34.

Ramey, James T., "The Requirements Merry-Go-Round—Must Need Precede Development?" Nov., 12–15.

Rich, Alexander and Aleksandr P. Vinogradov, "Arctic Disarmament," Nov., 22–23.

Rothschild, Jacquard Hirshorn, *Tomorrow's Weapons, Chemical and Biological*, reviewed by Matthew Meselson, Oct., 35–36.

Rozen, Marvin E., "Some Reflections on Civil Defense," June, 21–24.

Sachs, Robert G., "Power of Prediction—An Example," Dec., 20–21.

Salam, Abdus, "Pakistan—The Case for Technological Development," March, 2–5; "World Security and Developing Nations," Sept., 6–8.

Schapiro, Leonard, *The USSR and the Future*, reviewed by Alexander Rabinowitch, Feb., 30.

Semenov, N. N., "The World of the Future," Feb., 10–15.

Sheinin, Yuri, "A Soviet Scientist Looks at Disarmament," Jan., 19–22.

Sher, Lawrence, letter to the editor, May, 29.

Sherwin, Chalmers W., "The Management of Science in the Public Interest," June, 9–12.

Silard, John, "Economics and Politics of Arms Reduction," April, 6–7; "The Multilateral Force: The Case Against," Sept., 18–20.

Smythe, Dallas W., letter to the editor, Oct., 37–38.

Sohn, Louis B., "European Security—Interrelation of Political, Military, and Economic Factors," Dec., 16–18.

Snow, C. P., *The Two Cultures and A Second Look*, reviewed by Sanford A. Lakoff, May, 21–23.

Spilhaus, Athelstan, "Oceanography: A Wet and Wonderous Journey," Dec., 11–15.

Sponsler, George C., "The Military Role in Space," June, 31–34.

Stagner, Ross, letter to the editor, Mar., 24.

Stanford, George S., review of Martin and Latham, *Strategy for Survival*, April, 35–36.

Stone, Jeremy J., "Arms Race or Disarmament," Sept., 20–24.

Szent-Györgyi, Albert, "The Brain, Morals, and Politics," May, 2–3.

Szilard, Leo, "Minimal Deterrent versus Saturation Parity," Mar., 6–12.

Terral, Rufus, "To Kill a River," Sept., 35–37.

Tillet, Paul, letter to the editor, May, 28–29.

Todd, W. Murray, "Our Common Enterprise," Feb., 27–29; "Science in the State Department," Dec., 27–29.

Tucker, Frank H., letter to the editor, Dec., 22.

Vinogradov, Aleksandr P. and Alexander Rich, "Arctic Disarmament," Nov., 22–23.

Walker, George R., "Art, Science, and Reality," Sept., 9–13.

Waskow, Arthur I., "Advancing the American National Interest Without War," Feb., 23–25; letter to the editor, June, 37–38.

Weidenbaum, Murray L., "Obstacles to Conversion," April, 10–14.

Weinberg, Alvin M., "The New Estate," Feb., 16–19.

Weiner, Myron, *The Politics of Scarcity*, review by Norman D. Palmer, Dec., 24.

Wheeler, Harvey, "The Challenge of Bureaucratized Science," Jan., 14–17.

White, Gilbert, "Vietnam: The Fourth Course," Dec., 6–10.

Wiesner, Jerome B., "Science in Policy—Policy in Science," Feb., 36–40.

Wingo, Lowdon, *Cities and Space: The Future Use of Urban Space*, Reviewed by John Friedmann, May, 30–32.

Wohlstetter, Albert, "Technology, Prediction, and Disorder," Oct., 11–15; see errata, Nov., 36.

Wright, Robert L., "Wright on Patents," Oct., 34.

Young, Wayland, letter to the editor, Mar., 25; "MLF—A West European View," Nov., 19–21.

Zaromb, Solomon, letter to the editor, April, 33–34.

Zeisel, Hans, review of Huxley, *Literature and Science*, Jan., 34–35.

Zilsel, Paul R., "The Mass Production of Knowledge," April, 28–29.

Bulletin of the Atomic Scientists

A Journal of Science and Public Affairs

Volume XX, Number 10
December 1964

Eugene Rabinowitch
Editor
Ruth Adams
Managing Editor
Martyl
Art Editor
Phyllis Gelman
Assistant Editor
Dana Powell
Subscription Manager

CONTRIBUTING EDITORS

Betty Goetz Lall
Arms Control and Disarmament
Howard Margolis
Washington

EDITORIAL BOARD

Robert Gomer — **Edward Shils**
David Inglis — **Mary Simpson**
Aaron Novick — **Robert Wolff**

BOARD OF DIRECTORS

Peter Axel — **Eugene Rabinowitch**
Robert Gomer — **Cyril S. Smith**
J. R. Killian — **Charles H. Townes**
Alexander Langsdorf, Jr. — **Jerome Wiesner**
Franklin A. Long — **Hans Zeisel**
Donald H. Miller, Jr.
Walter J. Blum, *Legal Counsel*

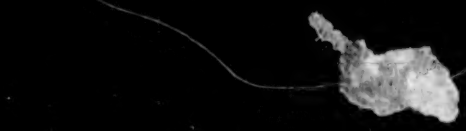
BOARD OF SPONSORS

Hans A. Bethe, *Chairman*
Lee A. Dubridge, *Vice-Chairman*

Samuel K. Allison — **J. Robert Oppenheimer**
Robert F. Bacher — **G. B. Pegram**
Detlev W. Bronk — (1876-1958)
A. H. Compton — **I. I. Rabi**
(1892-1962) — **Julian Schwinger**
E. U. Condon — **Frederick Seitz**
F. Daniels — **John A. Simpson**
Albert Einstein — **Cyril S. Smith**
(1879-1955) — **Leo Szilard**
James Franck — (1898-1964)
(1883-1964) — **Edward Teller**
Bentley Glass — **Harold C. Urey**
S. A. Goudsmit — **V. F. Weisskopf**
T. R. Hogness — **Hugh C. Wolfe**
F. W. Loomis — **Sewall Wright**
Philip M. Morse — **J. R. Zacharias**
H. J. Muller

Bulletin of the Atomic Scientists. Published monthly (except July and August). Second class postage paid at Chicago, Ill. Copyright 1964 by the Educational Foundation for Nuclear Science, Inc., 935 E. 60th St., Chicago, Ill. 60637.

Editorial and advertising correspondence should be addressed to Bulletin of the Atomic Scientists, 935 E. 60th St., Chicago, Ill. 60637. Manuscripts must be submitted in duplicate and accompanied by addressed envelope and return postage.

Subscription correspondence should be addressed to Bulletin of the Atomic Scientists, Circulation Department, 935 E. 60th St., Chicago, Ill. 60637. Please allow 5 weeks for change of address. Include your old address as well as your new address and, if possible, an address label from a recent issue.

Subscription rates for U.S.A: 1 year, $6.00; 2 years, $11.00; 3 years, $15.00. Canada and Pan American Postal Union: 1 year, $6.50; 2 years, $12.00; 3 years, $16.50. All other countries: 1 year, $7.00; 2 years, $13.00; 3 years, $18.00.